

POWERED BY **Dialog****PRESS MACHINE****Publication Number:** 2000-280094 (JP 2000280094 A) , October 10, 2000**Inventors:**ENDO KENICHI
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AIDA ENG LTD

Application Number: 11-339964 (JP 99339964) , November 30, 1999**Priority:**

11-020909 [JP 9920909], JP (Japan), January 29, 1999

International Class:B30B-001/14
B30B-015/06**Abstract:**

PROBLEM TO BE SOLVED: To provide a press machine using a toggle link which has a large variation ratio of slide stroke length, enables fine adjustment of a bottom dead point, and has small acceleration at a top dead point. **SOLUTION:** By rotation of an eccentric part 8A of a crank shaft 8, a slider 9 is moved upward/downward, and the end of an arm 6A extending over a fixing support point 5 of a toggle upper link 6 and the slider 9 are connected by a connection link 14 for connecting a driving link 11 and a drive connection link 12 at the connecting support point 13. A worm wheel 15 which is coaxial with the connecting support point 13 under the bottom dead point of the slide 3 is installed to a frame in a manner to adjust the rotation angle. Then, a second pin 17 at the tip end of a second arm 16 installed in a radial direction from the axis of the worm wheel 15, and the connecting support point 13 are connected with a third link 18, for restraining the movement of the connecting support point 13 on an arc. The position of the second pin 17 varies to adjust stroke length of the slide 3 and to maintain the bottom dead point constant. COPYRIGHT: (C)2000,JPO

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Press machine has worm wheel which is fixed to coupled fulcrum and used as slide stroke controller that restricts oscillating movement of driving link and connected link in coupled fulcrum

Patent Assignee: AIDA ENG LTD

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Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Week	Type
JP 2000280094	A	20001010	JP 99339964	A	19991130	200064	B
DE 10053690	A1	20010531	DE 1053690	A	20001028	200131	

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Patent Details

Patent	Kind	Language	Page	Main IPC	Filing Notes
JP 2000280094	A		9	B30B-001/14	
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Abstract:

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NOVELTY One end of a slider (9) is coupled with driving links (11) connected to connected links (12) in coupled fulcrums (13). One end of each connected link is coupled by a pin (17) to an arm (16), while other end is connected to an arm (6A). A worm wheel (15) is fixed to coupled fulcrum and used as a slide stroke controller to restrict oscillating movement of driving link and connected link in coupled fulcrum.

DETAILED DESCRIPTION The slider is connected by a connecting rod (10) to a crankshaft (8) and moves vertically according to the rotational motion of the crankshaft. The arm (6A) is coupled by a center coupling pin (7) to a toggle link (4) that is coupled to the driving link (19) of a slide (3).

USE None given.

ADVANTAGE Simplifies and improves maintenance and inspection work of the press machine by easily confirming the situation in the metal die by inspecting the metal die attached to the press machine. Reduces the manufacturing cost of the press machine. Enables to effectively adjust the bottom dead center even if it changes the slide stroke of the slide, just by adjusting the rotation angle of the worm wheel.

DESCRIPTION OF DRAWING(S) The figure shows the partial front elevation view of the press